RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Source: Date Processed by STIC:





IFWO

RAW SEQUENCE LISTING

DATE: 11/03/2004

PATENT APPLICATION: US/10/723,518

TIME: 16:12:25

Input Set : A:\Seq468ut.app

Output Set: N:\CRF4\11032004\J723518.raw

```
3 <110> APPLICANT: ROTH, RICHARD B.
        NELSON, MATTHEW ROBERTS
        BRAUN, ANDREAS
 5
        KAMMERER, STEFAN M.
 6
 7
        DENISSENKO, MIKHAIL F.
 8
        RENELAND, RIKARD
 9
        ATIENZA, JOSEPHINE M.
11 <120> TITLE OF INVENTION: METHODS FOR IDENTIFYING RISK OF BREAST CANCER AND TREATMENTS
        THEREOF
14 <130> FILE REFERENCE: SEQ-4068-UT
16 <140> CURRENT APPLICATION NUMBER: US 10/723,518
17 <141> CURRENT FILING DATE: 2003-11-25
19 <150> PRIOR APPLICATION NUMBER: US 60/429,136
20 <151> PRIOR FILING DATE: 2002-11-25
22 <150> PRIOR APPLICATION NUMBER: US 60/490,234
23 <151> PRIOR FILING DATE: 2003-07-24
25 <150> PRIOR APPLICATION NUMBER: US 60/504,258
26 <151> PRIOR FILING DATE: 2003-09-18
28 <160> NUMBER OF SEQ ID NOS: 235
30 <170> SOFTWARE: PatentIn version 3.2
32 <210> SEQ ID NO: 1
33 <211> LENGTH: 83405
34 <212> TYPE: DNA
35 <213> ORGANISM: Homo sapiens
37 <220> FEATURE:
38 <221> NAME/KEY: misc feature
39 <222> LOCATION: (18828)..(18833)
40 <223> OTHER INFORMATION: this region may or may not be present
42 <400> SEQUENCE: 1
43 aaccatcacc catactgtcc ctttaaacca gaactctgct tgccactctc ctttcstaac
                                                                       60
45 tettgggeat cetteaagge teagtatttg teaettegte cagaaatgtt teetqaetee
                                                                      120
47 ccaatccgag tccctaatac ctgctgcata gcccaatccg gcatctataa aattgtttca
                                                                      180
49 attgcattct tattcatctg tgtctcctaa gacactgtga tagggcagga atggtgtctt
                                                                      240
51 ggatatcact gatctccagt cccagtcaat aaattggatt tctgatttaa gtctcctatg
                                                                      300
53 atotggatac tocaagttqg agcattcaga gcaaagaatc tgcttggagt ttccttagcc
                                                                      360
55 aattgggtaa gccccaggct ggtgcagtgg ctcacgcctg taatctcagc actttgggct
57 gctgagatgg gagatttgct tgagcccagg aagttgaggc tacagtgagc catgattgca
                                                                      480
540
61 aaagcaaatt gggcaagcct tagggtctga accatggtaa atttctgtta ctttgtgagg
                                                                      600
                                                                      660
63 ctatttggcg accactgtgc ttgtaaaata gctttagtga cagttaagct ttgtcacaag
                                                                      720
65 cagggtctac tttgaaattc agtctgcaca tctgcctcta accagccttc cctgtcagag
67 ctcatagatt agctgccatg aagagtcatc ccaaatgtgt tgggtctttc atggataggt
                                                                      780
```

69 teegaagtea tteetacaca eeagagtgga tggtgeaatg gaagetatgg eeettateae

840

DATE: 11/03/2004 RAW SEQUENCE LISTING TIME: 16:12:25 PATENT APPLICATION: US/10/723,518

71 8	agattcggat	ttgtgtagta	gaaaaaaaga	cttgtctggg	aaccaggaaa	ttgcggttct	900
73 a	agttccagca	taatcactta	actcaatcta	tagttactaa	acttcttgag	gcctcagtgt	960
				taataaattä			1020
77 t	cacacaaca	aaggcttatc	tcttggtcct	cgtgtgtatc	tattccaggt	ctgcgaaaag	1080
79 9	getetgttee	ctctggtcac	tcagggaccc	agcctgatgg	aggttccatc	acctagtagt	1140
				caggggtcca			1200
83 9	gacgtgcaca	tgggctttca	ctgccttaat	tcagagctgt	gcttcacttc	ttctcagagc	1260
				cctaacttta			1320
87 9	ggaacaaatg	gaatcttcaa	tgacaattat	agtctaggcc	atattgagtt	tccacatctg	1380
89 t	tgataaagt	tatgataata	atagtatgat	ttacctcata	gagatgttgg	gaagatgaat	1440
91 9	gcatgtgaca	tgattaacat	tgtgctggct	catagaaagt	atttcacaaa	ttctagccat	1500
				aagtgggaaa			1560
95 a	actatgtaat	tcttctaaga	gcaaaagtga	ctgtgcctaa	gctcttaacc	atttgtgcct	1620
				gcattctgct			1680
99 a	aagaaaagct	tgttccagga	aagcttgttg	ttgaactgta	tgcccttccc	ccctctacct	1740
101	ttggtcctac	cccttctgcc	: aatcctggcc	atgactgccc	: ctgtcagcaa	cccagggaag	1800
						ccagggctca	1860
				: gtgagacacc			1920
						tggaaccaga	1980
				gcacactctt			2040
						aacgaaaaca	2100
				ı ggctgttgta			2160
						ctaataattg	2220
				g agagtgattt			2280
						acctccatgc	2340
				a caccetttet			2400
				g gtgtagttta			2460
						gcacctagca	2520
						taattttatc	2580
						atttggggaa	2640
						tccctgagaa	2700
				cccaagaaat			2760
				tgaaggcata			2820
				gttattatag			2880
139	tecegatige	: aaagtatatg	tgcatacatt	accitycia	geaeteatte	tgatcatggg	2940 3000
						gaatctggca	3060
						gggaaagaaa	3120
				aaacagcatg			3180
						cccaaatcaa	3240
						aaactggtca	3300
						gtcggctagc	3360
153	agggetetga	atcaattica	aaaggacata	. cecataagag	ttaanaaaa	ggtgaggtag	3420
152	gggttagett	. ggrggceetg	, yaayaaatgo	y yuaadtaatg	,aayag0	aaatctttga	. 3480
						tttttttt	3540
				ctagetetgt			3600
						ccctgcctcg	3660
				tgccaccatg			3720
105	ccctagtaga	. galggggttt	. cagiaigits	, ceeaggerga	aggggtgagg	ctgacctcag	3780
T0.\	gcaacccgcc	agcettegte	: ccccaaagtg	y cigggattac	; aggegtgaga	cactgtgccc	3700

RAW SEQUENCE LISTING DATE: 11/03/2004 PATENT APPLICATION: US/10/723,518 TIME: 16:12:25

169	ggcccctttg	ttttctaagc	aaaataacac	acacttacca	aagtttacag	gaactgtatg	3840
171	tttagaaact	ctaagaattc	atattctatt	ctcaaaacca	attttcacag	aaattggctt	3900
173	cataggagtt	attttatttt	catcctttac	gatggtcatg	ctgaagccag	taagactgat	3960
175	tgcaccctaa	ctcagagtca	cacactggat	taggtagttc	tggaattata	gacaagtctt	. 4020
177	ccaaaaatcc	atagtcagct	agtcaagaga	agtagacagg	taaagtatga	catattgtga	4080
179	aaagttttat	cagttatgaa	taaaatatca	tggaaataga	gaagatgggg	gaatagtttc	4140
181	tctaggggaa	ttgaaggaag	gtttacttct	ttggagatgt	cctttcttga	acttaccaaa	4200
183	aacttaccaa	aacttacagc	aactctgtgt	tttgttcaca	tcagtacact	tagttgtagt	4260
185	atcattcctt	gttcagagca	aagcattcag	taagtatttt	ggcctgaaaa	acagctaata	4320
187	tatagcggcg	accactggcc	aggcactgtg	tgctttcctt	gcattatgtt	atttaatcct	4380
189	cacaggagcc	ttacgagctt	cctcaggaga	gaaccaagag	ttaaagaagt	taagatggtc	4440
191	accacagttc	ctagttagag	gcagacctaa	tcctgaactc	acctctcttg	gattccaacc	4500
			caaactcact				4560
			attactggcc				4620
197	gcaaatagga	gactgtcaca	gctggggtaa	ttagaacagg	acctgagaac	ccctttggcc	4680
199	agatgccttc	tagaaataac	agtgtaccgg	tttgctcaag	ttggagagct	tcattctctt	4740
201	gaattgtatg	agaattccct	ggctaaatgt	caagcctaca	ggtttacaat	cttccatctg	4800
			ctgagaatcc				4860
			ggtttacatt				4920
			acaacagctg	_			4980
			ctgcctatgg				5040
		_	aggaatcagc		. – –		5100
			ttctttaagt				5160
	_		caaacctgag				5220
			gaaacagttt				5280
			tggcctttcc	-			5340
			acatttgagc				5400
			cactgttcct				5460
			tgcctggcca				5520
			gaatacagaa				5580
			tcctacctgt				5640
			aacagtctaa				5700
			gtgagcacag				5760
			cgaaggtgaa				5820 5880
			agaattaatt				5940
			tgtccacctc			_	6000
	_		tgcacctaag		-	_	6060
			tttcaaactg				6120
			cgactttcac caaattaaga				6180
			ctctggtaac				.6240
			cctttgaatt				6300
	_		atgccaagcc				6360
			ctgaacttcc				6420
			atcataattc				6480
	, –		tttcaggata				6540
			ttacactcaa				6600
			ccggagcggg				6660
			gtcaggttac				6720
200	Jautytaaaa	3 - 333 cacac	geedggeede	caucaccc	220000000000000000000000000000000000000	55500000	J.20

RAW SEQUENCE LISTING DATE: 11/03/2004

TIME: 16:12:25 PATENT APPLICATION: US/10/723,518

							6000
		aggatatttc					6780
		catagcatgt					6840
		tcctctgtac					6900
		ttatatattt					6960
		gctagtctgt					7020
		tgtatggata					7080
		tcagccaact					7140
281	aaaaagtaca	gcttataaca	caacttttat	tagaaaagtt	atacataaca	tagcatcaac	7200
		aacaatatta					7260
		aatgaccttt					7320
287	aacrgggaaa	actccttggt	ttacaggcac	atcatattga	atrtaaagct	gcaatagcaa	7380
289	ttttatacaa	ttaccactct	gaagaaactg	aatcattaaa	acagtaatta	cgagttcaca	7440
		atttcacata					7500
293	aagtgatttt	tttttcccac	aaaagtttca	acacttaagc	tagaactttc	agtgttaact	7560
295 [.]	ttgccctaaa	aagttaagac	attctgataa	tcataacagt	cacatgattt	ctgatgctat	7620
297	ctggtctgtt	aataataaag	tctttatttg	gatgtatttt	tcttcaatta	aattacagga	7680
		aggatttcgt					7740
		gatcagtact					7800
		gcttaaaagc					7860
		gggcaatttc					7920
		ttgatttata					7980
		agctttgctc					8040
		gaaagactca					8100
		ttttgtagct					8160
		aattacactt					8220
		ggagagtggt					8280
		ttttttcttg					8340
		acaggttttc					8400
		gccactcaac					8460
		atcttctgag					8520
		cagtttccct					8580
		aaaggcaaag					8640
		acacatgggg					8700
		ccttatataa					8760
		tgtgtcagct					8820
		gcttgttttc					8880
		ttagcaagag					8940
	-	gtaattcagt					9000
		aacgtaattt					9060
							9120
		atgggggtgg					9180
		cgttagttaa					9180
		cttgccatgt					
		gcctcaccag					9300
		aaataaactt		_	. —		9360
		actaacacag					9420
		aaagattgca					9480
		aaagtatgtt					9540
		ttctgacatg					9600
363	tatagtagta	aaatctagca	cttatagttt	ttaaagtaaa	aaattaataa	acacatgtca	9660

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/723,518

DATE: 11/03/2004 TIME: 16:12:25

365	actotcctat	tttaaqaaac	cttgagcaac	ttgcttggca	ttttgcagac	attcaagata	9720
					acgtctgatg		9780
					acaaaaaaca		9840
371	ggcatacaaa	ggagttgtgt	ggtatgtcac	catggttctg	cttttcagga	aaaccacaag	9900
373	cattctcctc	catqcttttc	cggcttactc	ttggcctaac	agtttatgta	tttaattaaa	9960
375	acttaaacta	taataaaaaa	aaaaaaqaaa	agaaaactct	ccctccagaa	aaaataaata	10020
377	aataaataaa	aatqtaqttt	tqqaaaaagt	ttgacaaagg	tatgctttct	gtttccagca	10080
379	tctaactttt	tttttttcaq	qqaacaatqq	caaaagcctt	tgatgaagca	ttttcctctg	10140
381	agacaacagc	ggcaatacct	gaaqaccatq	aagcatctgc	tgagtccttt	tgttccatct	10200
					tcctgaataa		10260
					ttctacatct		10320
387	cctaaattac	cttgagattg	tqtattttqa	actaatagaa	aactgtactt	aatgctgctg	10380
389	agcaatcact	tagcatttag	agtacaaact	qaaqaqtctq	tttttcttaa	attacaaggc	10440
391	aaagtcctct	atgtgcaagc	aaacatttgg	ctgaaagtat	gcttctatar	tgcgctataa	10500
393	ggatgctatc	tacacacact	atqtqqtctq	tggactgctg	ctgatcatgg	aggttttggt	10560
395	tactggcccc	tcttaaagaa	cttcaggata	taaatcaact	gtaccactaa	atatactgtt	10620
397	tatttcaact	aaatatacat	acataaatat	tgcaacatga	ttttctagat	gactaatgtt	10680
399	ctggcagact	cttaatctca	ttqtqqaqca	gtaccaaaga	gcctgcagac	tacctaagtt	10740
401	gatttatatg	gtgttttaaa	atqaatqqqc	tatactcctt	attatatatt	tcacttgagc	10800
403	aacctaqttc	tcaqccacat	qctqcctaaa	tgacttttta	aagtccaagg	tgggtgcaag	10860
405	gcagcagttg	tgatgttccc	aggctatggt	gaaactatat	accagccata	acagaaacca	10920
407	caactatttt	aatactcatt	cacaactaag	tctgagataa	tggcacatcc	tcacacatag	10980
					atattcatat		11040
411	cactattatt	agaattaaga	acagatgcta	ctgaaaattt	atccaatcca	taaccttttt	11100
413	tggtcttgaa	qaaatttaaa	cagcttcaat	gctacctaaa	ggacacctta	ttttaaattt	11160
					gaataaattc		11220
417	acaacaacct	caatgatcca	gaaattagga	agaaaaagaa	gaaaaaagac	cttcaacagt	11280
419	gtaaacatgc	cccaggaaaa	agaaattgat	tcctaaaaca	cctcttactt	tgtaaaaaga	11340
					aaagttatgc		11400
					gaaaacatat		11460
425	tttccaggcc	accacagata	cagaaaaggt	tatatcagaa	gcagacaata	acagcagtaa	11520
427	gaatcgtcca	ctgaccacaa	gatagtaaaa	gcagctacac	gcaatttaga	agccaagcaa	11580
429	gaaatcagtg	taaggacaat	tccatgtcct	tcaaaacccc	acaagagagc	caatgagtta	11640
431	cagcgaagca	taaaatttga	tgttcctaat	gatgatcaat	accacgaaga	atatggtaaa	11700
433	attttgctta	tattctaaca	tttttaaata	actctgatgc	tcagcatcaa	ttaagttagc	11760
435	cccaatatga	aaaataaagc	tggttggagg	tttttgctaa	atctggaatg	aaaattatta	11820
437	attagtttac	ctcttcctct	tcatcatctt	ctttttcctt	ctctttrtcc	ttctcttttt	11880
439	ctggcagaag	ttctaactct	ggtattagct	gacagatatt	tggaggttct	tctgggggaa	11940
441	gctctacagg	tggtatttcc	atctgctcta	cctgctgagg	cttaaagcaa	tacaaataag	12000
443	acaatttaag	atatatgctt	ttaaagtagc	ttattttaaa	tatgaaaata	cacagtggct	12060
445	gaagttttct	agtcaaaaag	aaatactgag	attatatctc	tatacttccc	cacaaggaaa	12120
447	aatttattac	agtatatatc	ttttttgatt	ttttataaaa	ctacattgaa	gtagcttaca	12180
					atacttactt		12240
					attgtaactt		12300
453	agctttcwct	ctgagagtct	tgaatgtctc	acggcagcaa	ataataggag	tgaggacatt	12360
455	gcttttctgg	gtccacttcc	tatatcttct	ctcaggcttt	acagaaagag	ttaagaacat	12420
457	taaaaccaaa	gtctttaaaa	gaaactaaag	aattaccaga	aggagggtgg	ttatgaaagt	12480
459	cacctactca	ttactgtgtt	cctattcctg	agctcataca	gaaaaatgct	cttattgaca	12540
461	actcttacca	ccagagggca	cagaaaacta	gttcttaaaa	ttggcagagt	attcttgatg	12600

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 11/03/2004

PATENT APPLICATION: US/10/723,518

TIME: 16:12:26

Input Set : A:\Seq468ut.app

Output Set: N:\CRF4\11032004\J723518.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:235; N Pos. 3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/723,518

DATE: 11/03/2004 TIME: 16:12:26

Input Set : A:\Seq468ut.app
Output Set: N:\CRF4\11032004\J723518.raw

L:5682 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:235 after pos.:0